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BRITAIN TO BEGIN 'STOP POLIO CAMPAIGN' WITH MALAWI

Blantyre MALAWI NEWS in English 4 Nov 79 p 12

[Article by Veronica Rose]

[Text] Each year thousands of children in the world die from poliomyelitis and an equal number are left permanently maimed, yet the disease can be prevented by vaccination.

Poliomyelitis takes two specific forms, paralytic and non-paralytic. It is an infection caused by a virus which particularly attacks motor nerve cells in the spinal cord and the brain. The virus can be conveyed by flies, hence the greater incidence of the disease in hot countries, particularly those in the poorer parts of the world. It can also be carried by humans who, though not developing the disease themselves, can pass it to others through droplet infection.

World Health Authority doctors are convinced the disease could be largely eradicated by a massive vaccination campaign spread over at least 20 years if necessary.

The British Save the Children Fund has launched a STOP POLIO CAMPAIGN as its contribution to the UN International Year of the Child. One of the first countries to benefit from its vaccination campaign will be Malawi here in Africa.

Infant mortality there is high: no fewer than 140 out of every 1,000 babies born will die and one third of all children do not survive beyond their fifth birthday. They do not all die of poliomyelitis, of course, but of 8,000 children selected at random for medical examination, 8.2 in every 1,000 had been crippled by polio, and those figures do not include children who died from the disease.

Since the late 1950s and early 1960s two oral vaccines developed by American doctors, Salk and Sabin have been available. The vaccine is dropped onto a lump of sugar and taken by mouth. After three doses a child is protected for life.

The cost of conferring life immunity is 90 pence per person, but the major initial cost lies in preparation for the conveyance of the vaccine. It is extremely unstable and even a short exposure to warm temperatures will destroy its effectiveness.

To counteract this the Fund financed a research project at Strathclyde University in Scotland which developed an ice making machine to keep the vaccine cool. It is suitable for use anywhere in the world.

It costs approximately K140 and is capable of producing 16 lbs of ice every 4 to 5 hours. As a result, ordinary cold storage boxes can be replenished with fresh ice while the vaccine is actually being transported--even in hot countries.

Any locally available combustible fuel can be used to power the machine--kerosene, gas, coal, wood or charcoal.

The machine is an integral part of what the Fund describes as a 'Cold Chain.' This chain includes a central freeze unit backed up by a regional store, refrigeration at district level, small refrigerators at clinic level, cold boxes and thermos flasks.

This protects the valuable vaccine which lasts for up to 6 months at 20 degrees centigrade, and approximately 10 days at minus four to eight degrees centigrade.

In Lesotho the Stop Polio Campaign 'cold chain' will stretch out from the capital, Maseru, to 17 regional and rural hospitals, all capable of keeping vaccine in properly refrigerated conditions. From these centers the vaccine will be distributed to 20 or more clinics throughout the country.

In Swaziland, where the infant mortality rate is even higher than it is in Malawi, many die from epidemics of polio which are becoming more and more frequent and serious. However, the problem of maintaining a successful 'cold chain' means that far too few babies can be vaccinated. Save the Children is working with the people of Swaziland to overcome this difficulty.

Figures for the incidence of polio in developing countries, especially those in Africa, are far from accurate.

For every case reported there are likely to be two or more not reported. Very often children in the bush die before medical authorities are aware that they have caught the disease, and often their parents do not realize its nature. The Stop Polio Campaign, launched recently by Princess Anne, President of the Save the Children Fund, is expected to cost in the region of about K800,000 a year over a period of 20-25 years.

Industrial nations stand to gain about K1,000 million as a result of a successful campaign to eradicate the disease. This is the sum which

poliomyelitis can cost in health, rehabilitation and social services, but the cost in human suffering is immeasurable.

In developing countries, where the birthrate is 80 million annually, the family relies very heavily on even the smallest child making some contribution in terms of the work load. The loss of one pair of hands is keenly felt. The responsibility for a handicapped child is a heavy burden.

CSO: 5400

ARGENTINA

INCREASE IN MEASLES, WHOOPING COUGH CASES REPORTED

Buenos Aires LA NACION in Spanish 20 Nov 79 p 7

[Text] An increase in reported cases of measles was recorded in October compared with the previous month. According to the information submitted by the municipality's secretary for public health, 68 cases were detected, as opposed to 57. This is within safety levels. Parents in general are reminded that all the emergency hospitals, and the specialized ones--Ricardo Gutierrez, Pedro de Elizalde, Muniz and Sarda--administer the antimeasles vaccine daily in their promotion and protection clinics.

A similar situation exists as regards whooping cough. Some 85 cases of this ailment were reported, as opposed to 45 in September. It was again announced that infants should receive three doses of the triple vaccine after the second month of life, and a fourth at 16 months. As for grippe, it continues on the decline, and in a mild form, with 2801 cases in September, and 1642 in October.

As a result of an outbreak which has been detected, there are a higher number of rubeola cases than usual: 369. In this regard, it should be pointed out that Children's Hospital, Elizalde and Muniz have a vaccination program which is administered after 15 months of age.

Finally, the information states that two cases of psittacosis have been reported in the capital, and three in Greater Buenos Aires. This disease begins with fever, headache and early pneumonic involvement; however, with present-day treatment it develops favorably in almost every case. The disease is caused by a filterable virus which had been found in parrots, cockatoos and pigeons, which are the natural reservoirs. Therefore, it is recommended that anyone who keeps these species in their homes should seek medical attention when any infection is suspected in the bird.

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AUSTRALIA

BRIEFS

INCREASE IN MALARIA--Malaria is on the increase in Australia, with as many cases reported in nine months this year as in all of last year. At the Queensland Institute of Medical Research, Dr. Brian Kay yesterday reported that up to a few weeks ago 225 cases of malaria had been reported in Australia. He said that the Commonwealth Health Department approved two drugs to combat chloroquine-resistant malaria: Malaprin and Falciparun. Professor Black said statistics indicated that many infections were picked up by travellers in Papua New Guinea. He said a form of falciparum malaria, which was potentially lethal, had spread into P.N.G. Although the type of mosquito which carried it could be found in Queensland, the parasite which caused the malaria had been kept out of Australia so far. [Excerpts] [Brisbane THE COURIER-MAIL in English 11 Oct 79 p 9] The number of imported malaria cases in Queensland this year had jumped alarmingly, the Health Minister (Sir William Knox) has warned. "Last year 58 cases of malaria were reported in Queensland. In the first nine months this year, 102 cases were reported. Almost all cases involved Australians returning home from tropical countries." Sir William said 67 cases this year were identified as having emanated from Papal New Guinea and 30 of these were the potentially lethal "falciparum" species. [Excerpts] [Brisbane THE COURIER-MAIL in English 19 Oct 79 p 12]

OYSTER VIRUS--The virus responsible for a widespread outbreak of food poisoning in Australia last year is still in two big New South Wales oyster beds. Scientists have confirmed the presence of the Norwalk virus in tests with volunteer oyster tasters. Norwalk virus was found in some of the volunteer tasters who suffered gastric illness after eating oysters from the Georges River and Brisbane Water near Sydney. In the medical journal report, a group of NSW scientists and health officials said last year's outbreak was the first time Norwalk virus had been found outside the United States. [Excerpts] [Melbourne THE AGE in English 18 Oct 79 p 3]

MULTIPLE SCLEROSIS STUDY--The national Multiple Sclerosis Society will undertake a national epidemiological study to determine the incidence of multiple sclerosis in Australia. The study will take about three years and cost about \$225,000. The president of the WA society, Dr Robert Cook, said yesterday that it was estimated that 12,000 people had the condition in Australia, of whom 300 were in WA. [Excerpt] [Perth THE WEST AUSTRALIAN in English 17 Oct 79 p 70]

CUBA

GOVERNMENT WORKING TO STOP MENINGITIS FLAREUP

PA121301 Paris AFP in Spanish 1640 GMT 11 Dec 79 PA

[Text] Havana, 11 Dec (AFP)--All Cubans younger than 20 years-of-age are being vaccinated against meningitis to counter a flareup of the disease that began early in the year, it was officially reported here today. During the first 10 months of the year 298 people have reportedly contracted meningitis as opposed to 152 in 1978 .

In view of this, the Public Health Ministry in Cuba, a country with 10 million inhabitants and the lowest child mortality rate in Latin America (19.6 per thousand), decided to undertake a large-scale preventive vaccination program. It is not an epidemic but a flareup of the disease, WHO representative Daniel Joly told AFP in Havana. He is an Argentine.

Two WHO advisers, Clair Broome, a bacteriologist from the Disease Control Center in Atlanta, and Hector Tigre, a WHO doctor in Washington, arrived here yesterday to help Cuban doctors Hector Terry and Josefa Fernandez, who are responsible for the prevention program.

An AC meningitis vaccine developed by the French Mérieux Institute, the best vaccine in the world according to Joly, is being administered to young Cubans and the children of foreigners living in Cuba.

CSO: 5400

GABON

BRIEFS

CHILDREN'S VACCINATION CAMPAIGN--The Gabonese Ministry of Public Health and Population has inaugurated a countrywide vaccination campaign. A mobile vaccination team headed by Leon Ntoutoume Nze and Etienne Pivoteau arrived in Cap Esterias on 22 November and started vaccinating children between the ages of 3 months to 5 years against smallpox, measles, polio, diphtheria, tetanus and whooping cough, etc. Besides the children, pregnant women were also vaccinated against tetanus. It is likely that the entire population of Cap Esterias will be vaccinated, since this mobile team will visit locally every month to check on the results of the campaign. The team was supposed to leave Cap Esterias for Owendo the next day. [Excerpts] [Libreville L'UNION in French 29 Nov 79 p 2]

LEPROSY ASSISTANCE--Within the framework of cooperation with the Gabonese government, the Sovereign Order of Malta donated to the Ministry of Public Health and Population 7 "Suzuki" Jeeps, 3 canoes and 20 bicycles. This important donation will allow the service for endemic diseases to supply each sanitary district with the most appropriate means to trace, treat and control this veritable scourge. Leprosy affects 20 percent of the Gabonese population, according to the estimates of a young French cooperant physician. Thanks to this varied materiel, the service for endemic diseases will be able to progressively take care of all the patients. [Excerpt] [Libreville L'UNION in French 26 Nov 79 pp 1, 4]

CSO: 5400

GERMAN DEMOCRATIC REPUBLIC

BRIEFS

DISEASE PREVENTION, CONTROL--As a result of preventive measures in the GDR, there have been no cases of infectious diseases such as diphtheria and poliomyelitis for years. For more than 10 years children and young people have not contracted tetanus. A special inoculation program has made it possible to immunize more than 80 percent of all citizens up to 80 years of age against this dangerous infection. It has also been possible to reduce considerably the incidence of other diseases. For example, measles cases decreased from 29,000 in 1970 to 900 in 1978; tuberculosis cases dropped from 96,000 in 1949 to 4,800 in 1978.
[Excerpts] [Schwerin SCHWERINER VOLKSZEITUNG in German 7 Dec 79 p 9]

CSO: 5400

BRIEFS

BILHARZIASIS OUTBREAK--A Member of Parliament has urgently appealed to the Government to send a medical team to Terchire in the Brong-Ahafo Region following an outbreak of bilharzia. According to Mr Kyei Badu, MP for Tano, the disease has attacked about 23 people, including schoolchildren, since it was detected a few months ago. He attributed the outbreak to the poor condition of drinking water in the area, and urged the Ghana Water and Sewerage Corporation to provide pipe-borne water for the people, adding that this could be tapped from Tanoso which is barely ten kilometres away. Mr Badu, who is touring the Tano Constituency to acquaint himself with problems facing the people, also complained about the spread of river blindness in the area, saying more than 100 victims live within the area. Meanwhile, Mr J. Y. Manu, chairman of the Terchire Town Development Committee, has announced that the people were ready to assist the Ghana Water and Sewerage Corporation to undertake an extension project to the village. [Text] [Accra GHANAIAN TIMES in English 22 Nov 79 p 3]

CSO: 5400

GUINEA-BISSAU

BRIEFS

LEPROSY ASSISTANCE--The State Commissariat for Health and Social Affairs signed an agreement with the Italian National "Amici di Raoul Follereau" Association, formerly known as "Amici des Lebbrosi" [Friends of Lepers], according to which a program designed to fight leprosy on a national level will soon be initiated in our country. The agreement refers to the establishment of leper cooperatives, and of training grants for Guinean cadre dealing with the treatment of leprosy. Specifically, one grant will be aimed at training a physician, and 9 others at nurses' training over a period of 2 years. This Italian association has already provided medicines for the fight against this disease. [Text] [Bissau NO PINTCHA in Portuguese 27 Nov 79 p 2]

CSO: 5400

RISE IN NUMBER OF POLIO CASES

Calcutta THE SUNDAY STATESMAN in English 25 Nov 79 p 3

[Excerpts]

There has been a rise in the number of polio cases in West Bengal this year. Dr B. C. Roy Polio Clinic and Hospital for Crippled Children, Calcutta, used to treat 100 to 150 cases daily at its out-patient department last year. Doctors now attend to about 300 cases every day.

Other hospitals in Calcutta have reported a rise in the incidence of this viral disease which virtually cripples a child. Seth Sukhlal Karnani Memorial Hospital has treated about 500 patients this year. So too has the Calcutta National Medical College and Hospital. On an average two cases a day are treated at its out-patient department.

Dr B. C. Roy Polio Hospital which looked after 587 patients in 1974, attended to 57,158 cases last year. Children between three months and three years are susceptible to the disease. Doctors say that breast-fed babies do not normally contract this disease. After 10, children are not very susceptible to this disease.

Doctors do not know the reasons for the sudden rise in the number of cases of this disease. No epidemiological and virological studies have been made. They point out that there has been deterioration in the hygiene in the State.

Children belonging to poor families who live on pavements or in damp, fly-infested huts with no privies and defecate in the open are susceptible to this disease. The virus usually enters the body through food and comes out through excreta in the early stage of the disease. The affected

children become vectors of the disease.

There is a lack of awareness among parents to immunize their children. Many parents said that they were not aware of the existence of polio vaccine till they came to hospitals for the treatment of their children.

According to Dr Bijon Chakrabarty, associate professor of paediatrics, Calcutta National Medical College, another cause for the outbreak of the disease is the misuse of drugs. This leads to disturbance in the normal flow of bacteria in the intestines thereby impairing their functional and natural immunity.

Dr S. N. Basu suggested that polio vaccine be taken thrice at an interval of four weeks. The first dose may be given when a child is two months. A booster dose should be given three years after the third dose.

The vaccine, which costs the Government 35 paise a dose, is given free at the medical college hospitals in Calcutta, district hospitals and in some other institutions. The demand for the vaccine has risen. In 1974 the State used 77,400 doses (each dose comprises 1 cc). In 1978 the demand went up to 146,000 doses.

SSKM Hospital, which received supplies from the Haffkine Institute, Bombay, distributes the vaccine. It is stored at a temperature of minus 20°C. However, private hospitals keep it in refrigerators. Therefore, the chances of the vaccine losing its potency cannot be ruled out because of frequent power-cuts.

CSO: 5400

NEW APPROACH TO COMBAT MALARIA URGED

Madras THE HINDU in English 23 Nov 79 p 6

[Text]

MADRAS, Nov. 23.—In combating malaria, the authorities should not rely entirely on chemicals but also try to use biological control of the mosquito, said Dr. V. Ramalingaswami, Director-General of the Indian Council of Medical Research here on Thursday.

Better urban planning and inter-disciplinary involvement of scientists, engineers and administrators were needed to tackle malaria—"the greatest scourge of human misery in the world," he said.

The naturalistic method of controlling diseases involved intensification of the natural processes which limited the multiplication of mosquitoes and of their contact with man. For example, periodical flushing of streams would help control some of the vectors (transmitting agents) in India.

Dr. Ramalingaswami was speaking at a three-day symposium on "Insect Vector Biology", organised by the Indian National Science Academy, at the World University Service auditorium.

Unplanned urbanisation under the garb of so-called development was instrumental in changing the ecological conditions which helped to spread many diseases.

DDT, the formula which helped to virtually eradicate malaria in the early 60s, proved a dismal failure later on as the insects developed resistance to the chemical. Small amounts of DDT got into the human system through food sources, and its accumulation over the years had even proved fatal." DDT has got rid of more malarialogists than mosquitoes", Dr. Ramalingaswami quipped.

Emphasis should be on eliminating the vital link in the classical malaria triangle—man, insect and parasite. Such vector-borne diseases included kala-azar, filariasis, and encephalitis.

Virtually every third person in the country—236 millions—was exposed to the risk of filariasis. Of these, 18 millions were carriers of the disease, and 14 millions positive to the disease. Uttar Pradesh, Andhra Pradesh, Tamil Nadu and Kerala were the most affected.

Only anti-larval measures had been so far successful in controlling the vectors of filariasis, again the deadly mosquito. Of late, it had spread to Rajasthan and Punjab. Unplanned urbanisation was a major cause for the spread of the disease. Rural filariasis had also been recognised in several places.

Dr. Ramalingaswami said the spread of brain fever (Japan encephalitis) could be possible due to the environmental changes. The viral infection, transmitted by mosquitoes, with pigs and other animals acting as reservoirs, was originally confined to a few places in India. The precise reason why it had assumed epidemic proportions was still not known.

He stressed the need to consider seriously the health implications of development activities before the schemes were launched. Programmes which had an impact on the environment needed special attention. For example, while provision of water to the rural areas for agriculture and human use was a major develop-

Mosquitoes' Preference

MADRAS, Nov. 23.—Spraying DDT only in the house helped to drive the mosquitoes outdoors, where they continued to flourish.

Some mosquitoes, which relished only cattle blood, had

now taken to human beings, thanks to urbanisation and the consequent driving away of cattle to the suburbs.

Hence, a clear understanding of vector biology and vector behaviour of each region in the country was necessary to prevent the malaria control programme from turning disastrous, said Dr. V. Ramalingaswami, Director-General of the ICMR, here on Thursday.

mental activity, steps should be taken for proper water management to ensure that conditions for breeding of vectors of human and animal diseases were not created.

"With a sound knowledge of ecology, population dynamics, vector biology and human life styles, it is still possible to salvage a great deal of the losses caused by the resurgence of malaria."

Studies had shown that application of DDT if carried out properly, could still provide the answer, through effective coverage in time rather than frequent changes in insecticides.

While much could be done through better management of the malaria eradication programme, alternative strategies were required for the long-term solution to the problem. A better understanding of vector biology, he said, was essential for developing an effective programme. He stressed the need to increase the training opportunities for malarialogists.

Among the alternative strategies were the naturalistic and biological approaches. In fact, these were the standbys in the pre-insecticide era. Dr. Ramalingaswami pointed out that bio-

environmental control methods based on sound knowledge of biology of vector species, climate, agricultural practices, and the topography were still potential strategies for combating vector borne diseases.

Better sanitary measures had helped control diseases like malaria, filaria, typhus, leprosy in different parts of the world, long before specific drugs had been employed in checking them.

Naturalistic control of insect pests depended critically on the joint ventures of the health agents, engineers and administrators. This if followed sincerely would yield rich dividends in the future. The method was relatively inexpensive and could be carried out effectively.

Biological control of vectors used a strategy designed to introduce a natural enemy to mosquito breeding—the fish. The concept involved using a living organism to control the population of another. This must be carefully considered with special reference to the safety of human and other non-target species, be cautioned.

"There is considerable scope for developing and testing new 'bio-insecticides,'" he said.

Dr. T. Ramachandra Rao, former director of the National Institute of Virology, Pune, stressed the need for more research on vector biology, and involvement of engineers in malaria eradication programmes. The existing practices in controlling malarial mosquitoes should also be continued, he added.

Dr. M. Anantharaman, Professor Emeritus of the Zoological Survey of India, welcomed the gathering. Dr. P. K. Rajagopalan, Director of the Vector-Control Research Centre, Pondicherry, proposed a vote of thanks.

CSO: 5400

MALARIA CASES REPORTED IN CALCUTTA

Calcutta THE STATESMAN in English 24 Nov 79 p 3

[Text]

Malaria is reportedly rampant in certain areas of Calcutta. A senior official of the West Bengal Health Department said on Thursday that more than 2,500 people in the city had been afflicted with the disease this year, while last year 1,278 cases had been reported.

The most affected areas are Chowringhee, Park Circus, Beg Bagan, Chitpore, Kalutolla, Shambazar and Amherst Street. The extreme north and south of the city are almost free from the disease, according to the spokesman.

In areas where malaria has broken out, accumulation of water either on roof tops or in reservoirs of multi-storeyed buildings under construction has been found. These were the breeding ground for the anopheles mosquitoes, the spokesman said.

Mossy reservoirs in old houses and tanks on roofs were also breeding grounds, he added.

All the cases reported are those of benign tertian malaria which causes the patient shiver and develop a temperature.

Some measures are being taken to fight the disease, according to the spokesman. DDT is sprayed if there are reports of two cases in a population of 1,000. It is sparingly used as it is said to be costly. If a patient is reported to be suffering from malaria, officers of the State Health Service visit the patient and give him four chloroquine tablets, a blood test is also taken. If the test shows up the disease the patient is kept under a five-day treatment.

The spokesman appealed to the people to use mosquito nets while sleeping. They were also asked to keep reservoirs and surroundings of their houses as clean as possible.

CSO: 5400

STEPS TO FIGHT ENCEPHALITIS IN KARNATAKA

Calcutta THE SUNDAY STATESMAN in English 25 Nov 79 p 7

[Text] Bangalore, Nov. 24.--A large number of deaths--103 out of 415 cases of Japanese viral encephalitis--in the past two months has made the Karnataka Government step up its efforts to get the vaccine from Japan.

It is trying to obtain vaccine in large quantities through organizations like the Rotary Club, Karnataka Health Minister, Mr M. Mallappa, said that the State Government had urged the Centre to help secure the vaccine.

The disease has broken out in an epidemic form at Doddaballapur taluk in Bangalore district and four taluks in Kolar district. It mostly affects children below 15. Reports from Kolar say the disease has spread to 164 towns and villages in that district and claimed 96 lives.

One out of four cases has proved fatal till now. According to statistics available at the Health Directorate, the fatality rate is 24.8% against the all-India figure of 28.8%.

This is the second time in three years that encephalitis has broken out in an epidemic form in the State.

The Government plans to undertake immunization work in the affected areas, spray insecticides and reduce the number of pigs and keep them away from human habitations. It is believed that the virus originates in pigs and is transmitted to human being through mosquitoes.

The Deputy Commissioner of Kolar has directed taluk boards and municipalities in the district to prohibit rearing of pigs near houses. Owners have been ordered either to slaughter them or drive them away. The Health Directorate has appealed to people to pour kerosene on stagnant water and cesspools.

UNI adds from Anantapur: Andhra Pradesh health authorities have requested the Indian Council of Medical Research to depute a team of experts to investigate the causes of encephalitis, which has claimed 13 lives in some villages of Anantapur district during the past three months.

The superintendent of Anantapur Government Hospital told reporters yesterday that 52 children and seven adults had been admitted to the hospital with brain fever since September.

The head of the paediatrics department of the local hospital, Dr K. Tirupathi Reddy, said the fever could have been caused by virus transmitted by migratory birds.

CSO: 5400

BRIEFS

INFECTIVE HEPATITIS--Report of infective hepatitis have been received from different parts of West Bengal, a Government Press Note said on Friday. It detailed the steps to be taken to prevent the disease. It suggested the use of boiled water for drinking and washing utensils.
[Text] [Calcutta THE STATESMAN in English 24 Nov 79 p 9]

JAPANESE ENCEPHALITIS DEATHS--Hyderabad, 29 Nov-- Twenty-nine deaths due to "Japanese encephalitis" have been reported from Anantapur and Chittoor districts of Andhra Pradesh since October 20 out of a total 127 cases of incidence. State Health Minister A. Madanmohan told newsmen yesterday that surveillance machinery for detecting the disease had been geared up. Two thousand doses of Japanese vaccine were being airlifted today from New Delhi. He said the disease had spread to Anantapur and Chittoor districts from the neighbouring areas in Karnataka State. The health authorities in Karnataka had been contacted and it had been agreed to adopt a common approach to fight the disease, the Minister added.
NAB/PTI [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 30 Nov 79 p 5]

CSO: 5400

JAPAN

BRIEFS

EL TOR CHOLERA CASE CONFIRMED--Fukuoka Nov 24 KYODO--A 59-year-old businessman in Maikata, Fukuoka Prefecture, has been found to be a carrier of genuine cholera germs, the health authorities reported Saturday. The man whose name was withheld was isolated in a hospital in Maikata for treatment, they said. Health officials said he had complained of loose bowels since his return to Japan on November 4 from Taiwan. He was later diagnosed by the National Institute of Health through examination as a El Tor-Inaba cholera case. The authorities were hurriedly conducting health checks on his family members and follow-up checks for 37 passengers who returned to Japan by a Cathay plane together with the 59-year-old man. They have also fumigated areas in and around the home and office of the man, they said. According to the Fukuoka branch of Cathay Airways, the plane, Flight 510, on the Hong Kong-Taipei-Fukuoka service on November 4 carried 155 passengers, including the 59-year-old man and 10 crewmen of whom 131 embarked at Taipei. [Text] [Tokyo KYODO in English (no time given) 24 Nov 79 OW]

CSO: 5400

ANTI-MEASLES CAMPAIGN TO AID MOTHERS

Blantyre MALAWI NEWS in English 11 Nov 79 p 5

[Text] Kasungu, Monday

THE District Chairman of the Malawi Congress Party here, Mr. Chlwengo Phiri has called on the people in the district to give maximum co-operation to the team which is currently carrying out anti-measles campaign in the district.

The District Party Chairman made the call in a circular letter addressed to the Party and traditional leaders in the district advising them to explain to the people the importance of having their children of 4 to 24 months old immunised against measles. "You must encourage the general public to bring their children for vaccination when the team visits your areas," he emphasised.

Meanwhile, a spokesman of the Ministry of Health who is leading the anti-measles campaign in Kasungu said that the campaign is making a remarkable progress.

He disclosed that the campaign is aimed at vaccinating about 80 per cent of children of 4 to 24 months age groups in Kasungu which will represent 11,197 number of children eligible for vaccination.

The vaccination campaign programme is financed by the United Nations for Population Activities (UNFPA) supported by the World Health Organisation (WHO).

The present campaign will cover 20 districts of Thyolo, Blantyre, Mwanza, Chiradzulu, Zomba, Machinga, Mangochi, Ntcheu, Dedza, Lilongwe, Mchinji, Kasungu, Dowa,

Ntchisi, Nkhotakota, Mzimba, Rumphi, Karonga, Nkhata Bay and Salima.

The other four districts of Mulanje, Nsanje, Chikwawa and Chitipa had already a pilot anti-measles vaccination project launched in 1974 which proved successful hence the decision to expand the programme to the rest of the districts.

The spokesman said that people were responding favourably in certain areas where prior publicity had been made.

The campaign team works hand in hand with Party and traditional leaders and the co-operation from Party officials has been commendable, he said.

"Without their co-operation, we may not be able to reach the 80 per cent target by the end of this month," he said.

Already Santhe, Kawamba, Njombwa, Kaomba, Lukwa, Chulu, Kaluluma and Mnyanja areas have been covered representing 50 per cent of the total number of children to be vaccinated. — MANA

CSO: 5400

NATIONWIDE WATCH KEPT ON TYPHOID SITUATION

Kuala Lumpur NEW STRAITS TIMES in English 11 Oct 79 p 1

[Text]

KUALA LUMPUR.
Wed. — A nationwide check is being kept on the typhoid situation to enable the authorities to control any outbreak immediately.

Perak is the only State to be affected so far. There have been 48 confirmed cases and 36 suspected cases since the outbreak of the disease on Sept. 1.

The assistant director (epidemiology) at the Health Ministry, Dr. Eddy Lo, said health officials were doing everything possible to prevent the disease from spreading to other parts of the country.

He said one State which has to be closely watched is Kelantan. It is an endemic area.

Confirmed

He said States which also have to be closely watched are Kedah, Penang and Selangor which are all endemic areas.

As a precaution, he called on people to eat only cooked food and drink boiled water. Ice water, ice cream, chendol, rojak and other exposed and cut fruits should be avoided.

The public is also advised to cooperate with the authorities by getting rid of flies.

"It is also important that people observe personal hygiene and seek early treatment if they fall ill," he added.

In Tapah, Perak, Ministry officials have confirmed that the recent outbreak is due to food sources.

They have ruled out the possibility that the disease could have been water borne.

Explosive

Health Services Director Dr. Haji Abdul Talib Latiff said if the outbreak was due to water sources, there would have been an "explosive" outbreak with numerous cases at the same time.

He said the authorities were now trying to isolate the type of food-stuff which could have started the problem.

It is believed that the food is something eaten generally by Indians and Malays. Of the 48 confirmed cases, 30 were Indian including seven Sikhs and 17 Malays.

There was only one Chinese despite the fact that the two outbreak areas at the 2nd mile Jalan Pahang and Kampong Batu Tiga are populated mostly by Chinese.

So far 81 food samples have been analysed by the authorities but there was no evidence of typhoid germs.

CSO: 5400

TWO CASES OF POLIO DETECTED IN GRANADA

Managua BARRICADA in Spanish 4 Nov 79 p 5

[Text] Granada, Malacatoya--Health officials have discovered two cases of poliomyelitis in this jurisdiction.

Therefore, the Emergency Committee, established to resolve the problems of the residents of Tepalon, Malacatoya jurisdiction, have requested the assistance of the medical staff of Selin Schible Hospital to undertake a comprehensive vaccination against polio.

Companero Ivan Sandino, member of the Sandinist National Police and also of the Emergency Committee, announced that the medical staff of the FSLN [Sandinist National Liberation Front] would go immediately to the area hit by recent floods taking along vaccines to solve health problems.

Sandino advised that in the committee meeting last Tuesday it was decided to initiate a large-scale vaccination of the children against that terrible disease.

The vaccination campaign will begin in Tepalon, where the prevailing situation is precarious.

He pointed out that measles vaccinations would also be given to the children of Malacatoya, Tapia and San Ramon. This project will be carried out in collaboration with a Red Cross brigade.

In turn, INRA [National Institute of Agrarian Reform], MIDA (Antirelection Democratic Integration Movement), IRENA, the municipal services and the Office of the Attorney General will make a survey of the area to definitely solve the problem of lack of communication with the village due to the flooding of the Malacatoya River which passes through this town.

Companero Sandino stated that other tasks performed by the committee will be that of evacuating those damaged by the flood, solving the problem of drinkable water, providing latrines for the area and eradicating the plague of mosquitoes which has greatly bothered the residents of this region.

Meanwhile, the Permanent Emergency Committee of Granada was formed by:
Rene de Triniad and Carlos Gazol of INRA, Josefa Baez and Antonio Delgadillo
of MIDA, Daniel Mendoza and Mina Burgos of the Red Cross, Gilberto Lacayo
of the municipal services, Ivan Sandino of the Sandinist National Police,
Dr Eli Rodriguez of the Ministry of Health and Guillermo Martinez of the
Ministry of Health Education.

8568

CSO: 5400

INCIDENCE OF ONCHOCEROSIS, TRYPARANOSIMIASIS NOTED

Niamey LE SAHEL in French 26 Oct 79 p 3

[Article by Gado Boureima, Coordinator of the Say Project]

[Text] In Niger, there exist two centers of onchocerrosis, both located in the yard of Say, one at Tamou and the other on the Sirba. The area at Tamou is centered approximately on the lower courses of the Diamangou and Goroubi Rivers. It constitutes the continuation of the Voltaic center of Botou. Several prospecting campaigns have taken place (1965-66, 1967-68, 1972), and clinical examinations (looking for cysts, biological examinations, looking for microfiliaries in the dermic fluid) have permitted a better understanding of the area of diffusion of the illness.

As for the center on the Sirba (Eolsi, Bossey-Bangou, Kakou, etc...) it has been well known since the investigation of February 1968 and is localized on the upper course, a sparsely-inhabited region which is especially difficult of access. The rate of endemic disease is the highest at the confluence of the Goroubi and the Niger River.

Disastrous Consequences

The first chemical spraying campaigns took place during the winter of 1977 under the aegis of the fight against onchocerrosis. They continue and will continue in their current form (treatment by aerial means) until at least the end of the second phase of the program, that is until 1985. The treatments with a product called abate consist mainly of killing the larvae of the simulies [translation unknown].

There is also animal trypanosimiasis which for its part does not spare cattle. In fact, if sleeping sickness has disappeared (in human form) in our country, it remains very disturbing for the livestock of the afflicted region.

The tse-tse fly is the vector. It is localized along the forested corridors bordering the Niger River, between Say and the Dallol Bosso, at the mouth of the Goroubi, the Diamangou and the Mekrou (over about 15 km).

In the dry season its area of spread does not extend beyond a few hundred meters on either side of the principal bed. But in the rainy season, flies are found up to a distance of 10 km away. The principal affected species are mostly cattle and small ruminants, but there exists on the Niger an infection of camelins [translation unknown] which has a much wider area of spread.

One Well for 1000 People

Cattle and small livestock are the most affected and the area of distribution of the disease is much larger than the area of distribution of the glossines (tse-tse flies), because of the manner of cattle-raising based on seasonal migration.

The number of animals at risk of being affected by trypanosimiasis is estimated at 400,000 cattle during the migration which leads them toward the pasturage of the neighboring countries: Benin, Upper Volta. Nearly 80,000 head of cattle contract the illness each year in the course of these movements.

Investigations carried out by the German assistance administration in Niger revealed a rate of infection of 25 percent in migrating cattle and a death rate of 4 percent.

Animal trypanosimiasis has disastrous consequences on the sick animals: emaciation, reduction or interruption of lactation, miscarriage, mortality, etc whence the importance of the losses on the economic plane.

Also its consequences are quite disastrous for our livestock made up of a majority of zebus, a bovine race highly susceptible to the disease. To all this must be added the multitude of parasites which, despite good pasturage, prevent the animals from attaining a satisfactory plumpness.

9508
CSO: 5400

PERU

BRIEFS

OUTBREAK OF MEASLES--An outbreak of measles has been detected in Junin, Cerro de Pasco. The town's health center lacks the appropriate vaccine to immunize its 18,000 inhabitants. [PY290253 Lima Domestic Service in Spanish 1200 GMT 28 Nov 79 PY]

CSO: 5400

PHILIPPINES

BRIEFS

TYPHOID CASES UP --Tagbilaran City, Dec. 2--Some 215 persons were hospitalized reportedly due to an outbreak of typhoid fever in Bohol province. Three officials from the Ministry of Health, motored to Lila town to assist provincial health authorities and five sanitary inspectors carry out an immunization drive. According to health authorities, of the 215 persons who were hospitalized, only one Prospera Miculob, 15 years of age, died. Red Cross Administrator Francisca Baluyot said her office has extended relief consisting of rice canned goods, milk and medicines to the affected families of Lila. Mrs Baluyot said the Bohol provincial hospital registered 113 patients diagnosed with typhoid fever while 81 are still being checked. Dr Melba Namata, Lila municipal health officer, confirmed the existence of mild typhoid epidemic in area of jurisdiction.--(Em. A. Enriquez). [Text] [Manila BULLETIN TODAY in English 3 Dec 79 p 20]

CSO: 5400

CONCERN OVER TB INCREASE REPORTED

Salisbury THE HERALD in English 6 Dec 79 p 13

[Text]

THE MAINTENANCE of an efficient health service in Gwelo has to be under constant review because of the deteriorating situation around the city, the chief health inspector, Mr H. K. C. Low, warns in his annual report.

The report, approved yesterday by a council committee, covers the year ending June 30. Mr Low writes of his "fear of a flood of people from the rural areas swamping the available services and staff".

He adds: "All developing countries are struggling to maintain and, if possible, develop their economies. To do this the health of the population must come before the demands for education, employment etc., for it is only those who are healthy in mind and body who will be able to absorb their education and convert such knowledge into an efficient production programme".

Attention is drawn to

"Generally and, in particular, there has been a shifting of the load of health care, quite unforeseen in the past, from the doctor (due to serious reduction in numbers) to the sisters in charge of clinics and hospitals."

"two disturbing factors". The first is the increase in the number of all types of tuberculosis cases and the second is the unusual cases of human rabies and anthrax admitted to the infectious diseases hospital.

In a footnote, the medical officer of health, Dr C.S.A. Molony, writes: "Under the present very stressful and disruptive conditions of life in our country, standards of health and health care have suffered badly.

CSO: 5400

RHODESIA

DOKTOR SAYS IMPORTANCE OF BILHARZIA 'OVERPLAYED'

Salisbury THE HERALD in English 3 Dec 79 p 4

[Text] In creating bodies of water man had interfered with the natural balance between bilharzia and the population which in turn had led to a dramatic increase in the incidence of the disease, Dr 'ie de V. Clarke, director of the Blair and De Beers Laboratories, said last week in Salisbury.

Denying that bilharzia was the most debilitating disease in this country, he said that on the contrary he considered it an overplayed subject.

It's importance is largely limited to the European population and the urbanised African population who tend to be more naive to the infection than his tribal counterpart. But bilharzia is widespread and increasing dramatically," he told a meeting of the National Affairs Association.

The vast majority of cases which occurred among rural Africans passed unnoticed by the person concerned and disappeared without any significant effects.

"But the situation is changing. The natural low level of bilharzia has been upset by the creation of dams and permanent water bodies," he said.

"The rural African population is becoming more stable and is housed in primitive conditions without adequate sanitary facilities. Contact between them and the permanent water body is very intense and the small population has increased as a result."

Stressing the importance of adequate sanitation, Dr Clarke said: "If we could control sanitation in this country we could control most diseases."

Significant advances had been made recently in treating the disease with metrifonate, a drug found to be 96 percent effective against the urinary tract infection and oxamniquane--which was extremely expensive--but effective against bowel infection.

Snail infestation was controlled with chemicals which fortunately presented no environmental problems.

"We are making progress. Working with the Yachting Association of Zimbabwe Rhodesia we have cleared some club sites to the extent that there has been no transmission of the disease at all during the last four years. But we have no hope of eradicating bilharzia and little hope of controlling it effectively with the facilities available to us," Dr Clarke said.

CSO: 5400

SOUTH KOREA

MEASLES SPREADS IN SEOUL

Seoul THE KOREA HERALD in English 25 Nov 79 p 8

[Text] Measles has been rapidly spreading among children in Seoul recently, doctors in the city warned yesterday.

It is unusual for the epidemic disease, communicated through air or contagion between skins, to be rampant in early winter.

Doctors said the unseasonal prevalence of the disease might be attributed to the recent unprecedented weather condition. Measles is usually found in early spring.

According to them, most of the patients visiting hospitals to cure the disease are six-to seven-month-old babies and five- to eight-year old children.

In the case of a Red Cross Hospital in Pyong-dong, Chongno-gu, Seoul, one or two measles patients have visited there daily since the middle of this month and the number has increased to more than 10 since early this week.

Other general hospitals such as the Yonsei University Hospital, Korea University Hospital and Koryo Hospital have also been visited by five to 10 patients daily this week.

Doctors said the disease now rampant in the city is characterized by symptoms similar to those of a cold in the early stage--for two-three days after being infected.

These red spots appear on the tongue and in the mouth, which soon develop over all parts of the body.

They said it often accompanies pneumonia, tympanitis or brain fever in more serious cases.

A child doctor at the Koryo Hospital said it has been known that babies aged less than a year are, in principle, not vulnerable to measles. But recently, it was often found among children aged between six to seven months and five to eight years.

CSO: 5400

SOUTH KOREA

BRIEFS

SUSPECTED HEMORRHAGIC FEVER--Pusan--A suspected case of hemorrhagic fever has been recently reported in Kyongsang Namdo for the first time. According to health officials here yesterday, a 33-year-old villager of Muyon-ni, Pubuk-myon, Milyang-gun, Kyongsang Namdo, Yun Mok-son has shown such symptoms of hemorrhagic fever as high fever and bloodshot eyes since Nov. 24 this year. He was being treated at the Songbundo Hospital here. Hemorrhagic fever cases have been usually found in the central parts of the nation near the demilitarized zone (DMZ) area in autumn and winter. It is the first that the fever case was reported in Kyongsang Namdo.
[Text] [SK070718 Seoul THE KOREA HERALD in English 7 Dec 79 p 8 SK]

CSO: 5400

TANZANIA

BRIEFS

CHOLERA QUARANTINE IMPOSED--The city of Mpanda in Rukwa Region has been placed under quarantine as a result of an outbreak of cholera as of 2 December. A spokesman of the department of health in the region stated in the city of Sumbawanga that since this disease broke out five people have died and some others are hospitalized in the government hospital in Mpanda. The office of the chief of Mpanda District has forbidden any person to enter or leave the city of Mpanda without the approval of the police, the office of health and the office of the district development director. Thousands of travellers going and coming between the cities of Sumbawanga and Mpanda have been stranded as a result of failure to obtain authorizations and also buses are forbidden to transport them until health conditions in the vicinity of the city of Mpanda are satisfactory. An order has been issued to close all cafes, bars, native beer clubs and hotels in the city of Mpanda. When cholera broke out in Rukwa Region in September, 1978, a total of 180 people died and others recovered in hospitals. [Text] [Dar es Salaam UHURU in Swahili 7 Dec 79 p 3]

CSO: 5400

THAILAND

MALNUTRITION, COMMUNICABLE DISEASE PROBLEMS DISCUSSED

Bangkok SIAM RAT in Thai 1 Oct 79 p 8

[Text] The problem of disease for the people is inseparably related to economic, political, and social problems. If the majority of people have a poor economic status, eat food of insufficient nutritional value, live in unhealthful housing, do not have clean water to drink, work too hard or live in environmental conditions dangerous to health, and do not have sufficient political voice or rights, such as in Thailand and other developing countries, it is normal that the people will have many problems with sickness and disease. Even though medical and public health budgets increase every year it may not be enough to solve the problems because they do not correct the root causes but only the proximate causes.

The Nutrition Research Institute of Mahidon University announced to the press on 20 March this year results of a survey indicating that 80 percent of the population of Thailand suffer from malnutrition. Most important is the problem of shortages of protein and calories among pre-school age children, who are at an age where they need to have food of sufficient nutritional value for both physical and mental growth. As many as 7 million pre-school age children suffer from malnutrition, about 200,000 of them seriously enough to require hospitalization, and 50,000 die each year.

Malnutrition in particular leads to numerous other diseases, but we Thai people suffer from many other basic diseases, such as parasitic worms. The chief of the parasitic worm project of the Communicable Diseases Control Division announced on 8 May this year that 62.7 percent (over 20 million people) of Thai people suffer from parasitic worms with not less than 10 million suffering from intestinal ring worms, 4-10 million with hook worms, and 5-6 million with liver flukes. It is estimated that they cause economic losses of not less than 5 billion baht per year.

The public health statistical report for 1975, which is the latest issue this writer was able to find, states that of people who die from sickness or accident most die at home, not in hospitals, because medical services

are not sufficient, particularly in rural areas. In 1975 about 300,000 people who died from sickness and accidents died of uncertain or unknown causes because they died in rural areas where no one could determine the cause. Of those who died from firmly established causes the significant causes were lung infection, cancer, tuberculosis, and respiratory system disease, heart disease, diarrhea, malaria, and venereal disease.

From the above remarks it can be seen that malnutrition, parasitic worms, and even death-causing diseases such as lung infection, tuberculosis, and diarrhea are all preventable diseases. They are not difficult types of diseases for which highly sophisticated medical techniques such as heart transplant operations must be used.

The real solution to the health problems of the people in the long run must lie with adjustments in the economic, political, and social systems to effect equitable and democratic distribution of status and income and an interest in development, education, and the quality of life of the people. However, such adjustments are major undertakings which must go through a long and difficult process. Here the writer will specify the actions which, under currently existing conditions where economic and political system adjustments may not be possible, can or should be taken to solve health problems of the people more than at present.

Firstly, we should get together to pressure the states to increase the budget for public health, because the current public health budget for Thailand amounts to only about 4.2 percent of the total expenditure budget, while the current budgets for national defense and internal security together equal 26.1 percent of the total expenditure budget (see the 1979 budget).

Secondly, we should spread out more public health personnel to the provinces. Ministry of Public Health statistics for 1975 indicate that the current ratio of doctors to population in Bangkok was 1:1,204. In the provinces there was 1 doctor for every 19,107 people, a 5-fold discrepancy. The ratios for dentists, nurses, and hospital beds to population show the same kind of discrepancy between Bangkok and the provinces.

Thirdly, the apparatus for producing public health personnel is copied from the developed Western countries and is not directed toward the solution of problems based on the actual situation in Thailand. For example, it is directed at producing a small number (500 a year) of high level specialists and the use of expensive implements and the latest technology, while in fact many people in Thailand die or suffer from simple diseases.

The solution is to produce large numbers of medium and low-level personnel, to have institutions for gradually raising their knowledge and capability levels later and to use existing resources and raw materials to advantage. For example, there should be additional education for medical doctors, old-time doctors, drug sellers, etc., research and disseminations about the uses of herbs, and a unit with the duty to provide knowledge widely and thoroughly about public health and medicine to the people via the mass media and via institutions, on-the-job training, and various other gathering places.

Fourthly, the problem of malnutrition among children under age 5 involving 50,000 deaths a year and several million others a year with insufficient food, should be taken up for urgent solutions, using economic measures to support distribution of low cost food to children all over the country with the state providing a subsidy specifically for this and using many methods in concert. Besides ensuring that there is lots of low-cost milk suitable for feeding infants there should be a nutrition center for infants, and officials should be sent out to help or to distribute food and milk and advice on the care and feeding of infants in the slums as well as in rural areas where this problem is encountered the most.

Fifthly, the government should seek ways for the people to receive more convenient and cheaper medical services such as by reducing taxes on drugs and medical supplies to make these necessary goods available at the lowest possible prices, controlling the standards and pricing of services of private hospitals, promoting increases in the mobile medical program, and improving the management of operating units of the Ministry of Public Health to increase their efficiency and to have doctors and other individuals work with greater efficiency.

In conclusion, all of the above proposals are only to solve short-term problems or to relieve problems, but the successful solution of the sickness and disease problems of the people is dependent on the solution of economic, political, and social problems as was mentioned at the outset.

The problem of health "prevention" is at least as important as "treatment," and in some cases it is more important.

Table

Some Diseases of Thai People

Sickness	Number of Sufferers
Parasitic worms of various kinds	over 20 million people
Pre-school age child malnutrition	7.2 million
Anemia	530,000
Nervous disorder	5.4 million
Venerial disease	350,000
Narcotics Addiction (Bangkok only)	360,000
Teeth or mouth related disease (only elementary school children in Bangkok)	96.7 percent
Rheumatic heart and congenital heart defect	158,000

References: 1. Communicable Diseases Control Division, Ministry of Public Health, THAI RAT 8 May 1979; 2. Nutrition Research Institute, BAN MUANG 22 March 1979; 3. Dr Sutsakhon Suchinda, THAI RAT 10 April 1979; 4. Mental Health Division, Medical Services Department, THAI RAT 16 November 1978; 5. Calculation from an announcement by Dr Ophat Thammawanit that 672 persons out of 100,000 have venerial desease, THAI RAT 11 March 1978; 6. Metropolitan Bangkok 1978; 7. Metropolitan Bangkok, PUANG CHON 9 June 1979; 8. Dr Kamphon Prachuapmo, THAI RAT 6 February 1979.

8947
CSO: 5400

VD STATISTICS, TREATMENT REPORTED

Bangkok SIAM RAT in Thai 5 Oct 79 pp 1, 12

[Text] A doctor discloses that Thailand must buy 1 billion baht worth of anti-venereal disease medicines abroad per year. Three million Thai people a year get venereal disease. The discoverer of "006 cream" control medicine will give the patent to the state.

Doctor Anuwat Limsuwan, chief of the disease staff of Ramathibodi Hospital, discoverer of the anti-venereal disease medicine called "006 cream" revealed statistics on cases of venereal disease in Thailand which show that in a year not less than 3 million people on the average catch it, and in order to treat it Thailand must buy from abroad anti-venereal disease medicines worth 800,000-1,000,000 baht per year.

Doctor Anuwat explained that the reason so many Thai people catch venereal disease is that there is a not inconsiderable number of chronic sufferers due to three main causes, namely heredity, mutant germs which produce new kinds of disease which existing medicines cannot cure, and use of incorrect medicines not in consonance with doctors prescriptions or self-treatment.

Doctor Anuwat went on to say that at the present time Thailand certainly has the capability to produce an effective treatment and prevention medicine for this kind of disease, which he discovered, called "006 cream". It won the top prize from the Ministry of Public Health this year. It uses raw materials, 100 percent of which can be produced in Thailand, and use of this treatment and prevention cream can save a lot of money for the victims and for the nation, because this cream is low-priced, only 10 baht per tube compared with injections from abroad priced at 50-100 baht per shot.

The "006 cream's" discoveror disclosed that several countries are currently trying to negotiate purchase of the patent from him, but he has not agreed to sell it. He intends to give the patent to the state for subsequent production because he is not knowledgeable about production and marketing.

VENEZUELA

MALARIA OUTBREAK IN PORTUGUESA STATE REPORTED

Sixteen Cases Reported

Caracas EL NACIONAL in Spanish 17 Nov 79 p D-25

[Text] Acarigua, 16 Nov--On 16 November, the number of cases of malaria detected in recent days in Portuguesa State increased so the Rural Endemic Services of the Malaria Division is carrying out a wide-ranging campaign to control the source of infection.

As of today, 12 cases have been found in people living in Sector Two of the Durigun district. Four imported cases were detected in the Santa Maria de Guanare district, presumably coming from zones infected by malaria.

It was learned from health sources that the Rural Epidemic Division is already controlling the source of infection by house and area spraying in the critical areas. Also they are still taking blood samples from inhabitants of those districts in order to determine if there are more positive cases.

The 12 cases in Acarigua and the 4 in Guanare are already controlled, according to the health sources, and the patients have received the normal 14-day treatment.

Barinas, 16 Nov--Twelve cases of malaria were detected in the El Infiernito, La Union and Buenos Aires districts in the northwestern part of this capital.

Dr Isidro Pons, head of the Rural Endemic Services of Zone 1 of the Malaria Division, explained that six of those cases were contracted locally and the others were contracted in the Ezequiel Zamora and Pedraza districts of this state where, due to topographical conditions, it has never been possible to eradicate malaria.

He added that the malaria outbreak forced the Malaria Division to begin large-scale fumigation to exterminate the carriers of that disease in the city.

Outbreak Under Control

Caracas EL UNIVERSAL in Spanish 20 Nov 79 p 2-24

[Text] Guanare, 19 Nov (INNAC)--The malaria outbreak in a populous urban district of Acarigua is completely controlled, according to Dr Ciro Gonzalez Espinoza, regional commissioner of public health of Portuguesa State. Dr Evelio Martinez Angulo, regional epidemiologist for that health organization, accompanied him here.

Doctor Gonzalez Espinoza's report confirmed the existence of 12 cases of malaria "which are completely controlled" in a well-populated sector of Acarigua known as Durigua.

The doctor revealed that all precautions have been taken to prevent the spread of malaria to other areas of the Paez district or neighboring states even though these are cases of simple malaria that is not contagious from person to person unless there is a transmitting microorganism like the anopheles.

Gonzalez added: "The health officials and the malaria specialists guarantee that there is no danger of any type although pertinent investigations will be made to establish the origin of these cases."

The doctor reiterated his opinion that it was not an alarming situation.

7717
CSO: 5400

VENEZUELA

POLIO ON INCREASE, 52 CASES THIS YEAR

Cases in Ciudad Guayana

Caracas EL UNIVERSAL in Spanish 21 Nov 79 p 2-28

[Text] Puerto Ordaz, 20 Nov--Ciudad Guayana has the highest rate of polio, according to Dr Ingrid de Delgado, head of the Manoa Division of the Ministry of Health and Social Welfare.

A total of 16 cases of polio have been recorded. This has led to an emergency vaccination campaign of some 24,000 children which will last about 12 days. The community should understand our concern and bring their children to the health centers, not wait for us to go house to house because this takes much longer.

The cases detected are being treated but many mothers have sick children and do not know what is wrong.

Vaccination Programs

Caracas EL NACIONAL in Spanish 25 Nov 79 p C-14

[Excerpts] Porlamar, 24 Nov--Dr Humberto Garcia Barrios, head of the Public Health Division, reported at the "Pastor Oropeza" Sixth National Pediatrics Congress that there were 52 cases of polio this year in Ciudad Guayana, Maracaibo, Cumana, Carupano and the Federal District.

This top official of the Ministry of Health and Social Welfare added that that situation has been caused by inadequate coverage by the vaccination programs in previous years. The endemic recrudescence began in the second half of 1978 and lasted until July of this year.

He said: "In 1977 there were 31 cases of polio and two-thirds occurred in the second half of the year."

Doctor Garcia Barrios noted the paradoxical attitude of Venezuelans concerning state services to prevent a number of diseases. He added: "Here health workers have to go from house to house to guarantee immunization of children. In other countries, it is the obligation of the family to go to health centers to get their children vaccinated."

He stated that a significant proportion of children are now protected from diseases like measles, whooping cough and tetanus due to the recent intensive vaccination campaign.

The head of the Public Health Division announced the possibility of a small-scale rubella vaccination program for selected groups to evaluate its feasibility with the idea of progressively extending it based on the results.

7717
CSO: 5400

VENEZUELA

BRIEFS

POLIO IN GUAYANA CITY--Ciudad Bolivar, 7 Nov--Officials of the Ministry of Health have detected 12 cases of polio in Guayana City, according to Dr Oswaldo Godoy, regional health commissioner. Doctor Godoy said that the ministry has been requested to plan a campaign, based on pertinent reports, for vaccinating children from 3 months to 2 years of age with emphasis on the inhabitants of the poorer sectors of Guayana City. Doctor Godoy emphasized that this situation is caused by two principal factors: many parents have little interest in whether their children receive the vaccine that protects them from this terrible disease and the "Iron Belt" has a migratory population that does not permit many children to receive the three doses necessary to immunize them. Parents must become aware of what the polio vaccine means since, only in this way, can the disease be effectively fought. They must permit their children to receive the vaccine and help the vaccinators carry out this humanitarian task, according to the regional health commission in Bolivar State. [Text] [Caracas EL UNIVERSAL in Spanish 8 Nov 79 p 2-28] 7717

CSC: 5400

MALAWI

BRIEFS

DOGS ORDERED CHAINED--Blantyre Thursday--A rabies tie-up order will be enforced in the City of Blantyre from November 27 to December 22, 1979 and all dogs must remain chained for 24 hours each day during the tie-up order. An official from the Regional Veterinary Office here has warned that any dog found roaming about will be shot dead after a whistle has been blown twice to warn the public. He has advised that free dog anti-rabies vaccination will be carried out in all centres mentioned below and that all unvaccinated dogs from the age of four weeks and above should receive the vaccine. The official has reminded the public of the serious dangers of rabies that it had no cure once symptoms showed in a human being or animal. All enquiries in connection with this tie-up order should be directed to: District Veterinary Officer, P. O. Box 30094, Chichiri Blantyre 3 or phone Blantyre 632 377. [Excerpt] [Blantyre DAILY TIMES in English 23 Nov 79 p 1]

CSO: 5400

FOOT-AND-MOUTH DISEASE: THAI CATTLE IMPORTS BANNED

Kuala Lumpur NEW STRAITS TIMES in English 1 Oct 79 p 13

[Excerpt]

JITRA, Sun.- The Government will not lift the ban on the import of Thai cattle, even though the foot and mouth disease epidemic in Kelantan, Kedah, Perlis and Perak is now under control.

Agriculture Minister Datuk Shariff Ahmad said this was because the disease was still prevalent in Southern Thailand, and Thai experts felt it would take six to 10 months to get the disease under control.

He said he would be discussing with Thai Prime Minister Kriangsak Chamanand, who is also Agriculture Minister, long-term measures to eradicate the disease and expand the livestock industry in both countries.

In view of the danger of the disease, not only to the livestock industry but also to the nation, Datuk Shariff said he would review the present situation after six months to determine whether the ban could be lifted.

He hoped the public would cooperate by preventing any smuggled cattle from entering the country.

Datuk Shariff was speaking at the launching of the long-term special rehabilitation scheme to reimburse farmers in Kedah and Perlis who had lost their animals in the epidemic last year. He also distributed fertiliser under the Government subsidy scheme to farmers in and outside the Muda Agricultural Development Authority (MADA) area.

Datuk Shariff said the recent meeting of Asean Agricultural Ministers in Manila had agreed upon the establishment of an Asean quarantine ring to contain agricultural and cattle diseases in the region.

This involved the strengthening and improvement of quarantine facilities at all international entry points to the Asean region.

The Ministers also agreed to launch joint action on a massive scale in the event of an occurrence of agricultural or cattle diseases, like the foot-and-mouth epidemic.

CSO: 5400

SANITARY BARRIER UNDER STUDY AGAINST TSETSE FLY

Maputo NOTICIAS in Portuguese 24 Oct 79 pp 2, 6

[Excerpts] Among the main activities underway within the framework of the Tsetse and Animal Trypanosome Control Project LI-2, included in the MONAP Program, are the feasibility of constructing a 60 by 2 kilometer sanitary barrier near Muabsa, Vilanculos district, to restrict the tsetse's progress toward the South and also the conducting of a survey of the location of this parasite--responsible for transmitting trypanosomiasis--in the country's northern provinces. This project is to be carried out at the Muabsa Station where enormous resources have been assembled for the struggle against the persistent and bloodthirsty presence of this little vampire whose nutrient is based solely on animal and human blood.

This insect, known as the sleep fly, glossina morsitans or tsetse fly, inhabits enormous areas of the national territory like the Muabsa region, in the Vilanculos district of the Inhambane province which is the country's southernmost area and limit of its infestation. All the other provinces north of the Muabsa Station have densely infected pockets of this scourge.

Works Underway at the Muabsa Station

Within the framework of the activities underway is the project for controlling this scourge, which is one of the major obstructions to cattle breeding development in the country. Now underway at the Muabsa Station is a fodder-storing campaign for 750 head of cattle presently located at that station. The project's plans are to reduce the herd to 500 head while conducting the experiments and also the breeding of the local herd population. Two kinds of experiments are also being conducted to evaluate the different diets needed for the cattle to prevent trypanosomiasis.

However, within the present work program the project is especially emphasizing the training of . . . at all levels. In May of this year students attended a course on this subject, given for them at the Eduardo Mondlane University School of Veterinary Medicine. This course will be repeated next November. To promote the efficiency and responsiveness of future veterinary cadres, it is hoped that combating the tsetse fly and trypanosomes can be included in the university's standard texts.

Survey of the Locality

Included in the training activities carried out at the Muabsa Station, a course was given from June to August of this year for 15 veterinary assistants mostly recruited from the northern provinces of the country through the provincial agricultural departments. The cadres received the assignment to conduct a survey on the presence of the tsetse fly in their respective provinces and to diagnose trypanosomes and other blood parasites. These results will be channeled to the National Department of Animal Husbandry to enable it to take the necessary measures.

Project LI-2 also embodies courses to average personnel through the Umbe-luzi Training Center. Also within the framework of training activities, project funds were used for remodeling the Muabsa Animal Husbandry Station to convert it into a training center. These works are almost completed. The station laboratory is to be provided with new equipment acquired through SIDA [Industrial Company for the Development of Agriculture]. In addition to these stages, the project also includes studies on the incidence of trypanosomiasis in state cattle herds and research of the various preventive methods to control this scourge.

"Project funds were used to buy large amounts of trypanosomicides. However, right now these drugs are being very wastefully used because animals are treated several times a year against trypanosomiasis without, however, using any previous diagnosis. It is feared, therefore, that this will result in the animals' developing resistance to the drug," explained the coordinator of the MONAP Program at the Ministry of Agriculture.

Sanitary Barrier

Nevertheless, the construction of a 60 by 2 kilometer barrier near Muabsa was considered a priority assignment because it is an important means of restricting (preventing) the fly migration. This idea, which was one of the project's most outstanding assignments, was for some time given up in favor of several contingencies, but it was reactivated at a meeting held in June in Muabsa.

It should be noted that Inhambane is one of our country's poorest provinces, and that both party and government local structures are exerting every possible effort to build this barrier which they consider a significant step toward developing the process to establish communal settlements.

According to authorities interested in this project, technically speaking, the construction of the barrier presents no difficulties and they can easily obtain the equipment for it. However, it is not yet sufficiently clear whether the results would be positive or if the fly can get around

the barrier. "To be effective," the MONAP Program coordinator later explained, "the barrier must be used intensely for agriculture, but the area is very dry and battles with a tremendous dearth of water, with no certainty that agriculture can be developed on it. The project will conduct specific studies to decide if the barrier is really a feasible project. For this purpose, FAO plans to recruit an entomologist (a specialist in the study of insects).

8870
CSO: 5400

WINDHOEK REPORTED INFESTED WITH RABIES

Windhoek THE WINDHOEK ADVERTISER in English 30 Nov 79 p 6

[Text]

WINDHOEK has been declared a rabies infested area. All pets must be vaccinated against rabies.

This is in accordance with the Animal Diseases and Parasites Act of 1956, State Veterinarian, Dr R Hassel, said in a Press statement yesterday.

Windhoek was declared an infested area due to the persisting occurrence of rabies in various animal species in the municipal area.

The outbreak follows the spread of the disease among kudus from the Okahandja to the Windhoek and Omaruru populations.

Because Windhoek is an area with many stray animals, including wild animals such as meercats, which are known carriers of the disease, all residents with pets are urged to have their animals vaccinated at the office of the State Veterinarian on the second floor of the Phillips Building at Ausspannplatz.

CSO: 5400

The vaccinations are free. All cats and dogs can be vaccinated from the age of three months. Dogs' vaccinations must be renewed every three years and cats once a year.

Dr Hassel also called the attention of the public to the requirements and regulations regarding the movement of cars and dogs from a rabies proclaimed or infested area.

Pets are only allowed to be transported after a transit permit has been issued by the State Veterinarian.

Such a permit will only be issued if vaccination requirements have been complied with.

The requirements specify that the animal must be inoculated against hydrophobia - "fear of water" as rabies is also known - at least 30 days before moving from or to a proclaimed area.

Animals younger than three months will be allowed to travel if a valid vaccination certificate of the dam can be produced.

The following are rabies - proclaimed or - control areas: the whole of SWA, the Kruger National Park, the districts of Barberton, Letaba, Messina, Nelspruit, Pietersburg, Piet

Retief, Pilgrimsrus, Potgietersrus, Soutpansberg, Warmbath, Waterberg, White River, Thabazimbi, Rustenburg not north of Nankwe and Marico in Transvaal, the magisterial areas of Mafeking 1 and 2, and the whole of Natal.

Information about regulations regarding the export of pets to foreign countries can also be obtained from the State Veterinarian.

Stray animals pose a definite threat and play an important role in the spread of the disease. Residents are warned not to handle these animals but to report their presence to the authorities so that these animals can be destroyed. The same applies to wild animals entering the built-up area, regardless of whether they show abnormal symptoms or not.

"The seriousness of rabies control cannot be exaggerated and pet owners are urgently requested to make use of the vaccinations available free at the State Veterinarian," Dr Hassel said.

There is no cure for the dreaded disease, which leaves the sufferer conscious until death comes within three to five days.

SENEGAL

PREVENTIVE MEASURES REDUCE INCIDENCE OF RINDERPEST, FOOT-AND-MOUTH DISEASES

Dakar LE SOLEIL in French 23 Oct 79 p 5

[Article by Cheikh Diakhate: "Noticeable reduction in mortality"]

[Text] Mr Mamadou Moustapha Dia, regional inspector of cattle-raising, presented during the last CRD [Regional Development Commission] presided over by Governor Moustapha Kane, the report of results of the 1978-79 campaign of livestock prophylaxis. The campaign of systematic livestock vaccination began, as it does each year, in the state of Gossas, with the concern of intercepting the herds migrating from the sylvo-pastoral zone, which spread very early into the peanut basin, then continued in the other states. "On the whole," said Mr Dia, "one can say that it was successful compared to last year's, and this despite difficulties such as the insufficiency of the vehicle fleet and the meager fuel allotments."

This situation is in fact related to two essential reasons: the echos of the rinderpest declared in the River region incited the cattle-breeders to prudence, thus improving the participation; on the other hand, there was the not negligible stimulating effect of the food quota selection process of the Operation to Protect Livestock (OSB).

In fact, the immunization slips required before any delivery of a food quota took on a real importance in the eyes of the cattle-breeders who look forward to the renewed distribution of rations during the next pre-harvest period. Moreover, the diffusion of timetables was well done in most states.

In regard to the sanitary situation, the inspector considers that it was not very bad during the period of the operation. The beneficial effects of the sanitary screening of the '78 preventive measures for livestock program made themselves felt, and a noticeable reduction of infant mortality was noted, thanks to the distribution of antiparasitic products which benefited more than 300,000 cattle. Thus the young did not suffer from parasites and the adults retained a noticeable plumpness, unfortunately quickly limited by the poor quality of the pasture-land.

Foot and Mouth Disease

Besides the few cases of telluric infections habitually observed, some attacks of foot and mouth disease were discerned in the states of Kaffrine, Gossas, Kaolack and Nioro. The illness took on a benign aspect with very low mortality, but the alert of shepherds having been made "when the heat was on," must have contributed to mobilizing them for the campaign.

Concerning the "cold," Mr Dia declares "that there was unquestionably an improvement in this domain," thanks to the efforts of the management of Health and Animal Production. "However," he notes, "it must be recognized that the outfitting has not yet reached the optimal level." In fact, the number of gasoline-powered freezers must be increased to permit outfitting all subsectors.

For the smaller cold stock, the importance of ice-houses which constitute precious relays no longer needs to be demonstrated. "The ideal equipment," according to Mr Dia, "would be to have two units per working group, which would make about six per sector. There is room then for reinforcing this type of stock."

For their part, the state officials hope that the division of Health and Animal Production will study a type of container capable of keeping ice for long periods, to mitigate the excessive moving around which the provisioning of the teams requires.

As for the intervention supplies, there was recorded, in the opinion of Mr Dia, real progress because of the allocations agreed to by Health and Animal Production. "We must simply point out the fact that, to economize on 'Genia' syringes, after the campaign, the clinics should be supplied with glass or plastic syringes."

Outdated Materials

The marking equipment should be included in the equipment of each team. The existing forceps, in Mr Dia's opinion, are "very old and dangerous to use." Similarly, the sterilization equipment dating from the "preventive measures for calves" has not yet been replaced. "There is an effort to be made in this area to give good work habits to our young agents."

The regional vaccination coverage is 93.49 percent for TI (Peripneumonia) compared to 93.74 percent in 77-78 and 57.22 percent for VCT [expansion unknown] compared to 61.02 percent in 77-78. As for the percentage of utilization, it is 89.24 percent for TI and 69.51 percent for VCT. The level of vaccination against bovine peripneumonia thus remains the same. This disease remains the nightmare of cattle-raisers.

As for rinderpest, the reactions of the cattle-raisers were different from sector to sector. Thus for those in Gossas, forced to put up with the

migrating herds, the protection of all the animals was necessary because of the conspicuous presence of the disease to the north; those in Kaffrine, Kaolack and Fatick did not feel threatened, because the disease had been wiped out before the start of their campaign; this caused them to bring in only young beasts.

The participation of herds in the assembly centers represents 74.68 percent compared with 70.7 percent for the 77-78 campaign, or an improvement due to the '78 preventive measures. The rate would have been higher, moreover, if there had not been a mass departure of herdsmen from the ward of Koungheul, who migrated for lack of pasture, and at Foundiougne, the exodus of the islanders toward the big centers.

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CSO: 5400

VENEZUELA

BRIEFS

FOOT-AND-MOUTH DISEASE--Dr Luciano Valero, minister of agriculture and animal husbandry, stated that the outbreak of foot-and-mouth disease reported in the Sucre District of Bolivar State is completely under control. Doctor Valero added that the Office of Animal Health of that ministry revealed that, although the outbreak is recent, instructions have already been given to vaccinate animals in suspected areas. The MAC [Ministry of Agriculture and Animal Husbandry] guaranteed that there would be specialized personnel in the area but it feels that the cooperation of the cattlemen is fundamental in order to isolate the outbreak. The usual MAC recommendations to cattlemen are in effect: to avoid moving cattle and the immediate isolation of sick cattle. [Text] [Caracas EL UNIVERSAL in Spanish 25 Nov 79 p 1-16] 7717

CSO: 5400

PANAMA TAKES PRECAUTIONS AGAINST PLANTAIN FUNGUS FROM COSTA RICA

PA132000 Panama City CRITICA in Spanish 13 Nov 79 pp 1, 18 PA

[Text] Engineer Cesar Polanco, director of vegetable health of the Agriculture Ministry, yesterday explained that the black sigatoka, a disease which attacks plantain trees and which is presently decimating the plantain plantations in the sister Republic of Costa Rica, has neither entered nor threatened to enter our country.

Polanco said there had been a recent outbreak of black sigatoka in Guatemala and Belize, and the disease is now causing great damage to Costa Rican plantain trees, but it is not a serious threat to Panama. Polanco added that the vegetable health and quarantine departments of the Agriculture Ministry are maintaining precautionary sanitary controls at Puerto Limon, on the border with Costa Rica, and in Bocas del Toro Province in an effort to keep the disease from spreading to our country. The disease is a fungus affecting the leaves of plantain trees, reducing their output, thereby causing losses.

In his statements to CRITICA, Polanco made it clear that the black sigatoka has at no time entered Panama. On the contrary, he said emphatically that in view of the existing vigilance it is unlikely the disease could spread.

Polanco said among the preventive measures which have been taken are inspections to prevent substances carrying the disease from entering the country and disinfection of automobiles coming from Costa Rica. He said there is a ban on all plant matter coming from that country.

Finally, Polanco said Costa Rica will have to spend huge sums on chemicals in order to eradicate the disease from its plantations.

CSO: 5400

AUSTRALIA

BRIEFS

PLAGUE LOCUSTS--Ground spraying of the present extensive outbreak of plague locusts in NSW has failed to stop the formation of flying swarms, according to a locust-control campaign spokesman, Mr Brian Clinton, of Dubbo. Mr Clinton said yesterday that extensive ground spraying by farmers had destroyed about 70 per cent of the locusts in the Dubbo district. The 30 per cent which escaped were quickly getting wings and forming loose swarms. When the flying locusts congregate into big, dense swarms they will be sprayed from aircraft. Relatively big flying swarms were now forming in the north around Warialda and Moree. They would also be forming around Dubbo in the next week. [Excerpts] [Sydney THE SYDNEY MORNING HERALD in English 8 Nov 79 p 9]

CSO: 5400

THAILAND

OUTBREAK OF RUBBER DISEASE FROM ABROAD FEARED

Bangkok DAO SIAM in Thai 24 Oct 79 pp 3, 14

[Text] Bangkok. Member countries of the Natural Rubber Producers Association fear that Latin America rubber tree leaf-fall disease may spread to rubber plantations in Southeast Asia, because if the disease occurs it is certain to damage the economies of natural rubber producing countries.

This was disclosed by Dr. Rik Sayamanon, director of the Plant Pathology Division of the Agriculture Department, who recently attended a conference in Malaysia of scientists from the eight natural rubber producing countries, namely Malasia, Indonesia, Thailand, Singapore, Papua New Guinea, Sri Lanka, Vietnam, and Nigeria.

The director of the Plant Pathology Division said that the Latin American rubber tree leaf-fall disease referred to has spread over Brazil, Bolivia, Peru, Ecuador, El Salvador, Surinam, French Guyana, Trinidad, Haiti, Panama, Honduras, Nicaragua, and southern Mexico, and the improved species from Southeast Asia in those countries have all died leaving only the native species of rubber which have low production yields.

As for results of the conference and discussions with scientists of natural rubber producer member countries, the conference adopted a resolution prohibiting natural rubber producer member countries from importing species of rubber and other plants from Latin America except for those imported for testing which must have certificates that they are free of this disease, which requires consultation with rubber producer member countries, and which must be quarantined for observation.

The conference in addition to agreeing on inspection of travelers and airplanes entering rubber producing countries which have come from South America and asking travelers to sterilize materials that have been brought from South America at the point of entry into the country in order to destroy any disease germs before the travelers enter the country also tasked scientific officials of the rubber producing countries to keep the rubber producing member countries informed of air routes in order to find ways to take preventative measures.

VENEZUELA

MAC TAKES MEASURES AGAINST SPREAD OF COFFEE RUST

Caracas EL UNIVERSAL in Spanish 25 Nov 79 p 1-16

[Text] A committee made up by MAC [Ministry of Agriculture and Animal Husbandry], the Coffee Growers Association and the National Coffee Fund has drawn up emergency measures to prevent "rust" disease from entering Venezuela. Colombia is now threatened by it since that disease has been detected in the Amazon region of Peru.

Mr Juan Bautista Martinez, president of the Coffee Growers Association, expressed the coffee growers' concern yesterday. He announced that MAC will begin a campaign in Venezuelan ports to prevent the entrance of this fungus which could ruin coffee crops in Venezuela.

He added that "rust" is a dark spot on the coffee leaf which turns yellow and emits a powder that spreads easily with the wind and can rapidly destroy large plantations. According to reports, the disease has reached the Amazon region, the coffee zones of San Rosa and Aramacao in Baqua, Peru.

The prevention campaign in Venezuela is easier now because it is the beginning of the harvest which permits inspection of the fields plant by plant. This is the only way to deal with the fungus if it has entered our country. Martinez added that there are no indications of the disease in Venezuela but it is indispensable to take immediate measures. Colombia has already taken them and maintains constant vigilance because if the disease reaches there, that country would lose 80 percent of its coffee.

The preventive measures announced by the coffee growers include the preparation and execution of a publicity campaign so that the workers in the field learn the extent of the danger of the disease. They have suggested that this committee on "rust" issue an informative primer to be distributed to all coffee growers in the country.

Finally, Juan Bautista Martinez said that harvest time should be exploited to inspect all the plants since once the harvest is over, vigilance will be much more difficult; it is even difficult to hire labor then.

'RHABDOVIRUS' ATTACKS PAPAYA PLANTATIONS

Caracas EL NACIONAL in Spanish 25 Nov 79 p C-5

[Text] A new virus--"Rhabdovirus"--now attacking the papaya plantations in the Zulia region was identified by IVIC [Venezuelan Institute of Scientific Investigations].

The "necrosis apical" of the papaya, as the disease is called, was reported by agricultural engineer Eduardo Quintero of CIARZU [Agricultural Research Center of Zulia] and Dr Ramon Lastra, Ph.D. in virology and researcher for the IVIC Plant Virus Laboratory.

Doctor Lastra stated: "This virus has not been identified in any part of the world until now. The 'Rhabdovirus' belongs to a very interesting group because it multiplies both in the insect that transmits it as well as in the plant. It invariably reproduces in animal and plant tissues. Only one of these viruses which produces dwarfism in corn has been seen in Venezuela. It was isolated and identified in the IVIC Plant Virus Laboratory 2 years ago."

Lastra revealed that these are very complicated viruses; they have several proteins and are very similar in form to the ones that produce rabies in humans and vesicular stomatitis in cattle.

When it was discovered that it was a new virus, tests were made to find out what the carrier was. It is a very small cicada, 1 millimeter in length, that lives on papaya plants. The name of the insect is "empoaca papayae." The only way to eliminate the disease is to exterminate the carrier or discover where it contracts the virus, whether from other diseased papaya plants or from a wild plant not yet discovered.

7717
CSO: 5400

VENEZUELA

URGENT MEASURES TAKEN TO PROTECT SUGARCANE CROP

Caracas EL UNIVERSAL in Spanish 19 Nov 79 p 2-6

[Text] In addition to the difficult economic situation of the Venezuelan cane growers, another serious danger threatens them. Certain diseases whose presence was detected a few years ago are afflicting the cane plantations, causing decreases in yield.

The diseases known as "rust" and "smut"--well understood but difficult and costly to eradicate--have invaded our cane plantations somewhat suddenly. If there is no remedy soon, there is a serious threat of destruction of cane cultivation in Venezuela.

The diseases have ravaged neighboring countries. Cuba expects a 25-percent decrease in production next year. In Peru export production, at least, has practically disappeared. In Santo Domingo production will decrease, not because of the diseases but the effects of Hurricane David. Because of this decrease, prices on the international market are quickly rising. It is possible that raw sugar will cost 2,000 bolivares per metric ton (2 bolivares per kilo) by the beginning of 1980. Our purchases abroad will be expensive.

Facing this serious problem, a technical committee made up by representatives of MAC [Ministry of Agriculture and Animal Husbandry], FONAIAP [National Fund for Agricultural Research] and CENAZUCA [Sugar Refineries] has disclosed a plan, after several months of intensive work, to prevent these diseases and fight the insects that increasingly affect and threaten sugar cane.

In a press conference in the CVF [Venezuelan Development Corporation] CENAZUCA headquarters, Dr Luis Frometa and Dr Joaquin Perez Rodriguez, presidents of FONAIAP and CENAZUCA respectively, stated that a plan has been finalized to eliminate these diseases that now afflict cane cultivation in Venezuela. The measures include both preventive and corrective aspects. Here are the most important points of the plan.

The first measure refers to a plan for seed certification directed by CENAZUCA and supervised by FONAIAP.

The seeds are for resistant varieties, adapted to mechanization and with a high sugar content which are well adapted to our climate. Also a plan for massive seed imports of varieties already approved in other countries that can successfully resist both diseases will begin.

The only resistant varieties are PR-980, B-41227 and POJ-2878 but these varieties are very low in productive capacity.

The second measure is to recommend that the producers make regular inspections of their plantations so they can quickly take preventive measures when certain symptoms show danger of an attack by any of these diseases.

The third measure is that the technicians of the Office of Plant Health of MAC will immediately begin a publicity campaign aimed at the prevention and control of the mentioned insects and diseases. Talks, distribution of posters, films, notices and other publicity will be aimed at adequately training the farmers and workers in the field and getting them to participate in the campaign to prevent and control those diseases.

Through the communications media, the technical committee asked all sugar-cane producers in the country to join this campaign, not only adopting the technical recommendations given but also contributing to the prevention and control campaign now beginning. Only a joint, consistent and well-organized action will permit us to reach the goal of self-supply.

The MAC, FONAIAP and CENAZUCA technical committee appointed by the agricultural cabinet on 5 November 1979 to solve the problems of "smut," "rust" and "candelilla" in sugar-cane cultivation has finalized a plan of action as follows:

1. The technicians of the Office of Plant Health of MAC will begin a publicity campaign in November for prevention and control of the mentioned insects and diseases. A round of talks by technicians from the health office and researchers for FONAIAP will be planned for the agronomy departments of CENAZUCA and the cane growers associations. Also the Office of Plant Health will produce appropriate illustrative material (posters, films, etc.), based on the results of the FONAIAP research, to help this publicity campaign. Along with the technicians of CENAZUCA, it will train farmers and workers in the field for prevention and control of the mentioned diseases.

2. Based on the research done by FONAIAP, the traditional commercial varieties of cane in our country have the following behavior toward "smut" and "rust":

Variety	"Smut"	"Rust"
B-4363	Resistant	Highly susceptible
CL-41223	Susceptible	Moderately susceptible
B-49119	Highly susceptible	Resistant
PR-980	Resistant	Resistant
H-382915	Susceptible	Susceptible
B-41227	Resistant	Resistant
F-2878	Resistant	Resistant
CP-57603	Susceptible	Resistant

As promising varieties sown in small fields in different areas of the country, the situation is as follows:

Variety	"Smut"	"Rust"
V-63-2	Moderately resistant	Resistant
V-64-10	Moderately resistant	Resistant
B-5480	Resistant	Resistant
B-64129	Susceptible	Resistant
B-65191	Moderately resistant	Resistant
PR-61632	Susceptible	Resistant
CP-5659	Moderately resistant	Resistant

3. FONAIAP will renew its research efforts on varieties resistant to "smut" and "rust" and will give pertinent recommendations for the prevention and control of "candelilla." There will be field tests using new imported and Venezuelan varieties whose results will make it possible in the medium and long term to replace varieties susceptible to these diseases.

4. FONAIAP will have the responsibility for the establishment of seedbeds--whose standards were approved by the MAC, FONAIAP and CENAZUCA committee--for promising varieties which resist "rust" and "smut." Subsequent diffusion of this material will be the responsibility of CENAZUCA and private refineries with the advice of technicians from FONAIAP and the Office of Plant Health.

5. Since there are not enough seeds of the varieties resistant to both diseases, it is recommended to those farmers who need large quantities of seed for their commercial fields to continue sowing the traditional varieties, keeping in mind the following prevention and control measures:

- a) Select material for sowing in non-infected areas, especially concerning "smut."
- b) In the case of "rust," limit as much as possible new plantings of the highly susceptible B-4362 variety, especially in those zones where its effect is very severe and the percentage sown is very high.

6. In the case of "smut," the recommendations are to:

- a) Make regular inspections of the fields, preferably between 6 weeks and 6 months of planting, to determine the presence of the "blackish marks," a characteristic symptom of this disease.
- b) If these marks are found, estimate the quantity per hectare, also noting the age of the plants, number of cuttings and variety sown.
- c) To eliminate the marks, cover them with a plastic bag and then cut them and burn them. Immediately after, thin out the sick plants and destroy their roots.
- d) When the estimated number of diseased plants per hectare is more than 2,000, the entire infected field must be destroyed.

7. No variety resistant to "candelilla" has been found anywhere. It is considered endemic mainly to the zones of Tacarigua, Rio Turbio, Portuguesa, Motatan, Yaritagua, Venezuela and Rio Yaracuy.

Nevertheless, it is recommended to the producers that as soon as the rains begin, they should make regular inspections of the plantations in order to begin the fight during the nymph stage of the insect since, apparently, elimination and control of the adult insect are very difficult. Control is very effective with appropriate insecticides during the first stage of the insect.

8. Finally, the committee asked the sugar-cane producers in the country to adopt these technical recommendations and join the campaign for prevention and control of the mentioned diseases. Without their active participation, this campaign will not be successful.

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HOM CITY RICE INSECTS--Rice insects have appeared on 6,000 hectares of 10th-month rice in Ho Chi Minh City suburbs. Some 4,300 hectares or more in Nha Be and Binh Chanh districts have been affected by leaf rollers and stem borers. Cadres have been sent to suburban districts to help peasants in weeding, aerating soil and killing insects and have saved more than 4,000 hectares of rice from being damaged by insects. [Ho Chi Minh City Domestic Service in Vietnamese 1200 GMT 23 Nov 79 BK]

LONG AN COMBATS INSECTS--As many as 3,000 hectares of 10th-month rice in Long An Province have been affected by leaf hoppers. Determined to make this rice crop a success, the Provincial People's Committee has instructed the agricultural service to supply the local peasants with insecticide in order to promptly exterminate these insects. [Ho Chi Minh City Domestic Service in Vietnamese 0500 GMT 2 Nov 79 BK]

CROP PEST EXTERMINATION--Hanoi, 8 Nov--The rice acreage damaged by brown plant hoppers this year was only one-tenth of that in the past two years. In the 1979 summer-autumn crop, only three percent of the rice acreage was affected. In the past years, some 20 percent of the rice crop in southern provinces were damaged by pests, especially by brown plant hoppers. Almost 600,000 hectares of rice or thirty percent of the rice acreage were damaged by crop plant hoppers in the Mekong River Delta in the main crop of 1977. All provinces are now supplied with pest-resistant strains. In the last winter-spring crop, peasants sowed more than 3,560 tons of these strains on 400,000 hectares. [Text] [Hanoi VNA in English 0251 GMT 8 Nov 79 OW]

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